

U.S. Antarctic Marine Living Resources Program

2010-2011 Weekly Field Reports

Cape Shirreff, Livingston Island

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Seabirds:

1. We continue to monitor known-age penguins. Of the known-aged chinstraps that have initiated clutches 12% have at least one chick 38% have crèched and 50% have failed.
2. Peak crèche for chinstrap penguins occurred on 1 February.
3. To date, we have collected 35 diet samples from chinstrap penguins and 20 from gentoo penguins. Chinstrap penguin diet samples have consisted almost entirely of Antarctic krill (*Euphausia superba*) with trace amounts of fish. Gentoo penguin diet samples were a mix of Antarctic krill and fish with three octopuses found. To date, average krill length for chinstraps is 40.8 mm and average krill length for gentoos is 45.2 mm with the diet samples consisting of 27% females, 53% males, and 20% juveniles.
4. On 2 February we retrieved 6 PTTs and 1 TDR from gentoo adults. These data await analysis. On 4 February we deployed 2 TDRs and 6 PTTs on chinstrap penguins that have chicks that have crèched. We will retrieve these instruments one week from their respective deployment dates.
5. Of the pairs of brown skuas that we are monitoring 6 nests have failed and 13 pairs have one or two chicks.
6. We have had yet another avian visitor to the cape. We've seen a juvenile macaroni penguin every day on one of our larger chinstrap colonies since 2 February.

Pinnipeds:

7. We have only 10 fur seal mother/pup pairs, of the original 30 (33%), remaining in our attendance study. Trip durations averaged 3.04 days ($n = 8$) for the week (31 Jan through 6 Feb).
8. Fur seal diet sampling continued this week with the collection of 10 scat samples from areas of suckling females. All scats collected were predominantly krill.
9. Systematic surveys of defined areas of the Cape for the 500 per annum fur seals tagged as pups continued this week. This will give us a measure of tags sighted per unit of effort for different cohorts and for different areas of the Cape. To date, our top three most represented cohorts in our tag resight data have been 1999-00, 2001-02, and 2006-07. A total of 97 different known-age individuals have been seen so far; this is 4% higher than sighted for the same period last year.



10. We conducted our third sample of CCAMLR pup weights on 4 Feb.
11. We have flipper tagged 110 pups for future demographic studies and cohort success. Seven of these were the pups of tagged adult females so far this season. This week we also completed our 3rd sample of CCAMLR pup weights, weighing and tagging 100 pups on our study beaches. Our remaining 390 tags for the year will be deployed over the next three weeks.
12. We are regularly seeing up to 30 individual leopard seals hauled out on the Cape at any one time. This is more than we have ever seen in the past for any one day.

Weather:

13. This week we recorded a minimum temperature of 0.0°C. The coldest it has been since early December. The high was 7.4°C. The mean was 2.°C. Mean wind speed for the week was 14.4mph and the max. gust was 41.0mph. More than 60% of the recorded wind directions this week were from the west.

Camp:

14. On 5 Feb our support vessel MOANA WAVE, arrived at the Cape. We took advantage of the good weather to off load from the island many supplies that will need to go back to La Jolla at the end of the season. We wish to thank the Captain and crew of the MOANA WAVE, Christian Reiss, Anthony Cossio, Ryan Driscoll, and all the science staff that came ashore and helped with off load.
15. Last Friday, the “quadricopter team” departed the Cape with our support ship MOANA WAVE. After almost 3 weeks with us, Wayne, Nancy, Doug and Steve successfully terminated their mission. With only a few good weather days they have been able to fly their machine and get incredible aerial pictures of the penguins and seal colonies. This will allow an accurate animal counts. It was really sad seeing them leave, they have been an incredible addition to the camp and great campmates. We will certainly miss Wayne’s pastas, Nancy’s cookies, Steve’s lasagna and Doug’s sushi. It was all wonderful. On behalf of all the Cape Shirreffers I would like to thank the “quadricopter team” for their help and for the wonderful time together, you are missed guys!
16. Jefferson Hinke came ashore, to join us for the remaining four weeks. We all knew Jefferson already and we are really happy to have him here. It is always great to have another good friend on the team. He will help finish the penguin work and will also give us a hand with the last seal captures and with the closing of camp. Welcome Jeff, we are all excited to have you here.



Submitted by AMLR staff currently residing at the Cape Shirreff field camp, Livingston